

1 WHAT IS CLAIMED IS:

2 1. (twice amended): In an expandable stent, wherein said stent has a plurality of  
3 interconnected, ~~solid~~ members, and wherein said interconnected, ~~solid~~ members form flexion  
4 points where two or more of said members interconnect, whereby each of said members has  
5 a cross-sectional width and a thickness and said members flex relative to each other as said  
6 stent expands, the improvement comprising:

7 an array of relief cut means formed in some of said interconnected, ~~solid~~  
8 members at or near said flexion points, said relief cut means extending completely through  
9 said members, whereby said members flex more easily as said stent expands than without  
10 said relief cut means, and wherein each of said relief cut means ~~is sufficiently small that the~~  
11 ~~columnar compressive strength of said interconnected members is not significantly reduced~~  
12 ~~by the presence of said relief cut means formed therein~~ is a hole having transverse  
13 dimensions less than said cross-sectional width of said interconnected members where said  
14 hole is formed.

15 2. (original): The apparatus of claim 1 wherein said stent is a balloon expandable  
16 stent.

17 3. (original): The apparatus of claim 2 wherein said stent has distal and proximal ends  
18 and a central section, and wherein said relief cut means are formed only in said distal and  
19 proximal ends.

20 4. (original): The apparatus of claim 2 wherein said stent has distal and proximal ends  
21 and a central section, and wherein said relief cut means are formed only in said central  
22 section.

23 5. (original): The apparatus of claim 2 wherein said interconnected members of said  
24 stent have cross sections wherein the width is greater than the thickness.

25 6. (original): The apparatus of claim 5 wherein said width is between 1.5 and 5 times  
26 as great as said thickness.

1 7. (canceled)

2 8. (original): The apparatus of claim 7 wherein said holes are circular.

3 9. (original): The apparatus of claim 7 wherein said holes are elliptical.

4 10. (canceled)

5 11. (original): The apparatus of claim 1 wherein said stent is a self-expandable stent.

6 12. (original): The apparatus of claim 1 wherein said relief cuts are applied to said  
7 stent in patterns to allow controlled, non-uniform expansion of said stent.

8 13. (twice amended): In an expandable stent having a plurality of cells and said stent  
9 is movable between a retracted and an expanded position, wherein said cells are formed by  
10 a plurality of flexible, interconnected solid members, wherein said members have a thickness  
11 and a cross-sectional width and form flexion points where two or more of said members  
12 interconnect, said members flexing relative to each other as said stent expands, the  
13 improvement comprising:

14 an array of relief cut means formed in some of said solid members at or near  
15 said flexion points, said relief cut means extending completely through said solid members to  
16 cause said members to flex more easily than without said relief cut means being formed  
17 therein and wherein each of said relief cut means is ~~sufficiently small so that the columnar~~  
18 ~~compressive strength of said members is not significantly reduced~~ a circular or oval hole  
19 wherein the transverse dimension of said hole measured in any direction across said hole is  
20 less than the cross-sectional width of said solid member where said hole is formed.

21 14. (original): The apparatus of claim 13 wherein said stent is a balloon-expandable  
22 stent.

23 15. (original): The apparatus of claim 13 wherein said interconnected members have  
24 cross sections wherein the width is between 1.5 and 5 times as great as the thickness.

1           16. (previously added): The apparatus of claim 13 wherein the cross-sectional width  
2 of said interconnected members is the same at said flexion points as it is between said flexion  
3 points.

4           17. (previously added): The apparatus of claim 1 wherein the cross-sectional width of  
5 said interconnected members is the same at said flexion points as it is between said flexion  
6 points.

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